a characteristic comparison routine identifying the file content as having a characteristic based on the appearance of the digital content ID in the appearance database.

- 2. The content classification system of claim 1 wherein said ID generator comprises a hashing algorithm.
- 3. The content classification system of claim 2/wherein said hashing algorithm is the MD5 hashing algorithm.
- 4. The content classification system of claim 1 wherein said ID appearance database tracks the frequency of appearance of a digital ID.
- 5. Please Cancel Claim 5.
- 6. The content classification by stem of claim 1 wherein said plurality of digital ID generators are coupled to said database via a combination of public and private networks.
- 7. The content classification system of claim 6 wherein said database is coupled to an intermediate server which is coupled to said plurality of generators.
- 8. The content classification system of claim 6 wherein said intermediate server is a web server.
- 9. The content classification system of claim 1 wherein said characteristic comprises junk e-mail and said characteristic is defined by a frequency of appearance of a digital ID.
- 10. A method for identifying characteristics of data files, comprising:
 receiving digital content identifiers for the data files from a plurality of source
 systems all coupled to a network;



determining, on a processing system coupled to the network, whether the forwarded identifier matches a characteristic of other identifiers; and

outputting, to at least one of the plurality of source systems responsive to a request from said source system, an indication of the chrematistic of the data file based on said step of determining.

- 11. The method of claim 9 wherein said step of generating comprises hashing at least a portion of the data file.
- 12. The method of claim 10 wherein said step of hashing comprises using the MD5 hash.
- 13. The method of claim 10 wherein said step of generating comprises hashing multiple portions of the data file.
- 14. The method of claim 9 wherein said data file is an email message and said step of determining comprises determining whether said email is SPAM.
- 15. The method of claim 9 wherein said step of determining identifies said e-mail as SPAM by tracking the rate per unit time a digital ID is generated.
- 16. Please cancel claim 16
- 17. The method of claim 15 wherein said step of processing comprises instructing said plurality of source systems to perform an action with the email based on said determining step.
- 18. A method of filtering an email message, comprising:
 receiving a digital content identifier unique to the message content from at least two of a plurality of devices;



comparing the digital identifier to a characteristic database of digital identifiers received from said plurality of devices to determine whether the message has a characteristic; and

responding to a query from at least one of said plurality of devices of the existence or absence of said characteristic of the message based on said comparing.

- 19. The method of claim 17 wherein said step of comparing occurs on at least one network coupled processing system.
- 20. The method of claim 18 wherein said step of receiving includes receiving identifiers from said plurality of first systems
- 21. The method of claim 18 wherein said plurality of systems are coupled by the Internet.
- 22. The method of claim 18 wherein said step of comparing comprises determining the frequency of a particular ID occurring in a time period, classifying said ID as having a characteristic, and comparing digital identifiers to said classified IDs.
- 23. A file content classification system, comprising:
 - a first system having a file to be classified;
- a file ID generator on the first system outputting at least one file ID for the file based on a generated checksum of at least one selected portion of said file;
- a database on a second system coupled to the ID generator to receive IDs generated by the ID generator; and
- a comparison routine on the second system classifying the ID relative to the database as meeting or not meeting a characteristic.
- 24. The system of claim 22 including a plurality of first systems each including a respective file ID generator coupled to the database on the second system.



- 25. The system of claim 23 wherein the plurality of first systems is coupled to the second system via a combination of public and private networks.
- 26. The system of claim 24 wherein the second system comprises a web server interface system and a database system, wherein the database system is isolated from the Internet by the web server system.
- 27. A file content classification system for a first and second computer coupled by a network, comprising:
- a client agent file content identifier generator on the first computer, the file content identifier comprising a checksum of at least two non-contiguous sections of data in a file; and
- a server comparison agent and data-structure on the second computer receiving identifiers from the client agent and providing replies to the client agent;

wherein the client agent processes the file based on replies from the server comparison agent.

28. A method for providing a service on the Internet, comprising:

collecting data from a plurality of systems having a client agent generating digital content identifiers for each of a plurality of files on the Internet to a server having a database;

characterizing the files based on said digital content identifiers received relative to other digital content identifiers collected in the database; and

transmitting a content identifier to the client agent indicating the presence or absence of a characteristic in the file.

29. The method of claim 27 wherein said step of collecting comprises collecting a digital identifier for a data file.

-6-

30. The method of claim 27 wherein said file content is an e-mail.

Attorney Docket No.: PACE-01000US0

pace/1000/response-001

XX

31. The method of claim 28 wherein said step of characterizing comprises: tracking the frequency of the collection of a particular identifier; characterizing the data file based on said frequency; storing the characterization; and comparing collected identifiers to the known characterization.